



**UNITED STATES DEPARTMENT OF COMMERCE**  
**Patent and Trademark Office**

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/713,727	09/13/96	STAV E	14005/407B

A1M1/1226

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EXAMINER

MARCHESCHI, M

ART UNIT

PAPER NUMBER

1108

20

DATE MAILED: 12/26/96

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.

08/713,727

Applicant(s)

Stav et al.

Examiner

Michael Marcheschi

Group Art Unit

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☒ Responsive to communication(s) filed on Sep 13, 1996

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 1-11 and 17-27 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1-11 and 17-27 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 8,9,10

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

Evaluations of the level of ordinary skill in the art requires consideration of such factors as various prior art approaches, types of problems encountered in the art, rapidity with which innovations are made, sophistication of technology involved, educational background of those actively working in the field, commercial success, and failure of others.

The "person having ordinary skill" in this art has the capability of understanding the scientific and engineering principles applicable to the claimed invention. The evidence of record including the references and/or the admissions are considered to reasonably reflect this level of skill.

Claims 1-11 and 17-27 are rejected under 35 U.S.C. § 103 as  
being unpatentable over Harris in view of Francis et al.,  
Kosmatka et al. and Jorgenson.

Harris teach in column 2 line 25-column 4 line 16 a  
cementitious composition comprising 25-60 wt. percent portland  
cement (can be type III), 40-75 wt. percent calcium sulfate

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hemihydrate (alpha form) and a pozzolan source (silica fume and fly ash). The pozzolan source can either be added a separate component or as a blended cement. Irrespective of how its added, the pozzolan content should be between 3-50 wt. percent based on the weight of the cement. It is also shown that water reducers, set retarders, etc,. can be added to the composition. This reference fails to teach the specific type of gypsum (beta form) and the absence of the alpha form. In addition, the other pozzolanic filler aggregate and corresponding amounts are not disclosed. Finally, the thickness of the construction material is not disclosed.

Kosmatka et al. teach on page 64 and 65 that pozzolanic fillers (i.e. pumice) are well known materials to be incorporated into cementitious compositions in order to enhance a variety of characteristics of the compositions. It is also shown that set control additive, water reducers etc. are well known conventional additives to be used in cementitious compositions in order to control the setting of the composition, reduce the water demand, etc. On page 15 and 16 it is shown that type III portland cement is a well known type of cement to be used to produce cementitious compositions.

Francis et al. teach in column 3 lines 46-61 the functional equivalence of the alpha and beta forms of gypsum when used in conjunction with a pozzolan (fly ash). In addition, it is shown

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that fillite is a well known filler to be used in conjunction with gypsum to produce a cementitious composition.

Jorgenson teach in the abstract that it is well known to produce a flooring composition by incorporating sand into a calcium sulfate hemihydrate composition in an amount of between 13-30 parts per 10 parts of calcium sulfate hemihydrate.

It is the examiners position that it would have been obvious to replace alpha gypsum with beta gypsum in the composition according to Harris because the substitution of art recognized equivalents as shown by Francis et al. would have been within the level of ordinary skill in the art. The examiner acknowledges that Francis et al. use fly ash as the pozzolan but since the claimed invention incorporates silica fume (a pozzolan) and another pozzolanic filler, no distinction is seen to exist because the reference teaches the functional equivalence when used in conjunction with a pozzolan. In the absence of any evidence that the claimed pozzolans will not meet the criteria (pozzolan) of Francis et al. no distinction is seen to exist. It is also the examiners position that it would have been obvious to incorporate a pozzolanic filler aggregate in the composition according to Harris because Kosmatka et al. teach that this component is a well known additive to be used in cementitious composition in order to improve a variety of characteristics. In addition, the use of a filler will optimize the composition

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because it will fill in the voids present in the composition produced from the main components thus optimizing certain properties. The amount of this material would have been obvious because it is the examiners position that said amount would have proved to be obvious through routine experimentation. In the absence of any evidence showing that the claimed amounts are critical (unexpected results), no distinction is seen to exist. It is also the examiners position that it would have been obvious to produce a flooring composition by the addition of sand to the composition according to Harris because Jorgenson teach that it is well known to add sand to a calcium sulfate hemihydrate composition in similar amounts in order to produce a flooring composition. The use of fillite as the filler would have also been obvious in the composition according to the Harris because Francis et al. set forth that this is a well known conventional filler to be used in conjunction with gypsum to produce a cementitious composition. In addition, it is the examiners position that the thickness of the construction material would have been obvious depending on the end use of the composition. If one desired a construction sheet of a thickness of 1/8, the formation of said sheet to meet this size would have been obvious. In view of this, this limitation is viewed as an obvious design choice for the construction material. Finally, the subject matter as a whole would have been obvious to one

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having ordinary skill in the art at the time the invention was made to have selected the overlapping portion of the range disclosed by the reference because overlapping ranges have been held to be a prima facie case of obviousness, see *In re Malagari*, 182 U.S.P.Q. 549.

Applicants use the term 'about' which permits some tolerance. *In re Ayers* 69 USPQ 109 (CCPA 1946).

In view of the teachings as set forth above, it is the examiners position that the references reasonably teach or suggest the limitations of all the claims.

"A reference can be used for all it realistically teaches and is not limited to the disclosure in its preferred embodiments" See *In re Van Marter*, 144 USPQ 421.

Applicant's arguments with respect to claim 1-11 and 17-27 have been considered but are deemed to be moot in view of the new grounds of rejection.

After further review, the examiner reinstates the rejection made in the first office action of the parent case.

With respect to applicants arguments and the declaration filed 2/12/96, applicants do not argue the combination of the references as applied in the office action of 9/8/95. Applicants have not provided any arguments (reasoning behind) relating to why the examiners combination would not have been obvious. With respect to the declaration, said declaration does not compare the

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claimed invention with the teachings according to the references and therefore no distinction is seen to exist. Apparently applicants are trying to show unobviousness of the composition with respect to the characteristics thereof (i.e. strength) but the claims do not incorporate these limitations. In view of the above, no patentable distinction is seen to exist between the claimed invention and the combined references.

Evidence of unexpected results must be clear and convincing. *In re Lohr* 137 USPQ 548. Evidence of unexpected results must be commensurate in scope with the subject matter claimed. *In re Linder* 173 USPQ 356.

The references cited on the 1449 have been reviewed by the examiner and are considered to be art of interest since they are cumulative to or less than the art relied upon in the above rejections.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Marcheschi whose telephone number is (703) 308-3815. The examiner can be normally be reached on Monday through Thursday between the hours of 8:30-6:00 and every other Friday between the hours of 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiners supervisor, Mark L. Bell, can be reached at (703) 308-3823.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0661.

Michael Marcheschi

Patent Examiner  
Group 1100  
12/23/96